Amendments to the Drawings:

The one (1) replacement sheet of drawings include changes to Figure 1. The change consists of adding a "Prior Art" legend to Figure 1.

Attachment: One (1) replacement sheet corresponding to Figure 1

REMARKS/ARGUMENTS

This Amendment is in response to the Office Action dated November 30, 2005.

Claims 1-26 are pending in the present application. Claims 1-26 have been rejected. Claims 1 and 14 have been amended to further define the scope and novelty of the present invention, as well as to correct typographical and grammatical errors, in order to place the claims in condition for allowance. Claims 6 and 19 have been amended to better conform to amended independent claims 1 and 14, respectively. Support for the amendments to the claims is found in original depended claims 6-7 and 19-21 and paragraphs [024] and [033] of the specification. Applicants respectfully submit that no new matter has been presented. Accordingly, claims 1-5, 7-18, and 20-26 remain pending. For the reasons set forth more fully below, Applicants respectfully submit that the claims as presented are allowable. Consequently, reconsideration, allowance, and passage to issue are respectfully requested.

Drawings

The Examiner has objected to the drawings due to discrepancies and lack of a prior art legend. In response, the specification has been amended to address the above-referenced objections. Specifically, a prior art legend as been added to Figure 1. The corrected drawings is attached hereto. Also, in paragraph [004], the reference number 35 has been replaced with the reference number 25 to eliminate the discrepancy between the specification and Figure 1.

Specification/Abstract

The Examiner has objected to the specification and abstract due to informalities and typographical errors. In response, the specification and abstract have been amended in accordance with the Examiner's suggestion to address the above-referenced objections. Specifically, in paragraph [009] on page 4, line 4, one instance of the term "netlist" has been replaced with the term "netlists." Also, in line 4 of the abstract, one instance of the term "netlist" has been replaced with the term "netlists," and the paragraph number "[044]" has been deleted.

Claim Objections

The Examiner has objected to claims 1 and 14 due to informalities. In response, claims 1 and 14 have been amended in accordance with the Examiner's instructions to address the above-referenced objections. Specifically, in claim 1, line 3, one instance of the term "netlist" has been replaced with the term "netlists," and a comma has been added after the term "hierarchical." Also, in claim 14, line 4, one instance of the term "netlist" has been replaced with the term "netlists." Accordingly, Applicants respectfully submit that the amendments to claims 1 and 14 overcome the objections.

Claim Rejections - 35 U.S.C. §102

The Examiner has rejected claims 1-26 under 35 U.S.C. 102(e) as being anticipated by Otaguro (U.S. Patent No. 6,966,045). Applicants respectfully disagree with the Examiner's rejections. The present invention provides a method and system for optimizing a netlist change order flow, wherein a design layout created by a layout

tool using a reference netlist is to be changed by a modified version of the netlist, and wherein both netlists are hierarchical. In accordance with the present invention, the method includes comparing the modified netlist with the original netlist outside of the layout tool, and automatically generating at least one change order based on differences found between the two netlists. After the change order is generated, the change order is then applied to the design layout to generate a modified design layout. According to the method and system disclosed herein, the present invention provides a software tool that is capable of generating change orders outside of the layout tool, eliminating the need to use the layout tool to generate engineering change orders (ECOs). The present invention also makes it easy for customers and design engineers to determine what the ECOs are, and to validate the ECOs before updating the original layout. Otaguro does not teach or suggest these features, as discussed below.

Otaguro discloses a method and computer program product for estimating wire loads (Abstract). Otaguro fails to teach or even suggest the "wherein the comparing comprises generating a first instance map data structure and a first net map data structure corresponding to a flat view of the reference netlist, and generating a second instance map data structure and a second net map data structure corresponding to a flat view of the modified netlist, wherein each of the first and second instance map data structures maintain a mapping of leaf-level instance names, and wherein each of the first and second net map data structures maintain a list of nets," as recited in amended independent claims 1 and 14.

Independent claims 1 and 14 have been amended to incorporate the features of dependent claims 6-8 and 19-21. The Examiner has rejected original dependent claims

6 and 19, which recite "generating two data structures corresponding to flat views of the reference list and the modified netlist, an instance map and a net map." However, the Examiner did not cite where Otaguro specifically describes these features. Nowhere does Otaguro teach or suggest these features of the present invention. The Examiner has referred to column 6, lines 30-45, of Otaguro as teaching the features of claims 7, 8, 20, and 21. However, column 6, lines 30-45, of Otaguro merely mentions names of signals, identification names of instances, and names of pins. Otaguro does clearly does not mention, "generating a first instance map data structure and a first net map data structure corresponding to a flat view of the reference netlist, generating a second instance map data structure and a second net map data structure corresponding to a flat view of the modified netlist, wherein each of the first and second instance map data structures maintain a mapping of leaf-level instance names, and wherein each of the first and second net map data structures maintain a list of nets" as recited in amended independent claims 1 and 14.

Furthermore, Otaguro does not teach or even suggest "automatically generating at least one change order based on differences found between the first and second instance map data structures and between the first and second net map data structures," as recited in amended independent claims 1 and 14. The Examiner has referred to the background section (column 2, lines 11-13 and 20-23) of Otaguro as teaching these features. However, these sections merely describe conventional Engineering Change Orders (ECOs). Nowhere do these sections describe or even suggest that the ECOs are "automatically generat[ed]" as in the present invention. Referring to the background section of the present invention (paragraphs [005] through

[007], conventional ECOs are time-consuming and error prone, because they are hand-generated. A benefit of the present invention is that change orders are automatically generated. It is believed that Otaguro does even not attempt to solve the problem addressed by the present invention.

Accordingly, Otaguro fails to teach or suggest the combination of steps as recited in amended independent claims 1 and 14, and these claims are allowable over Otaguro.

Dependent claims

Dependent claims 2-5, 7-13, 15-18, and 20-26 depend from amended independent claims 1 and 14, respectively. Accordingly, the above-articulated arguments related to amended independent claims 1 and 14 apply with equal force to claims 2-5, 7-13, 15-18, and 20-26, which are thus allowable over the cited references for at least the same reasons as claims 1 and 14.

Conclusion

In view of the foregoing, Applicants submit that claims 1-5, 7-18, and 20-26 are patentable over the cited reference. Applicants, therefore, respectfully request reconsideration and allowance of the claims as now presented.

Applicants' attorney believes that this application is in condition for allowance. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted,
Strategic Patent Group

February 24, 2006

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